

## Meditation for Health Purposes

Meditation for health purposes is a mind-body practice in complementary and alternative medicine (CAM).<sup>\*</sup> There are many types of meditation, most of which originated in ancient religious and spiritual traditions. Generally, a person who is meditating uses certain techniques, such as focusing attention (for example, on a word, an object, or the breath); a specific posture; and an open attitude toward distracting thoughts and emotions. Meditation can be practiced for various reasons—for example, with an intent to increase physical relaxation, mental calmness, and psychological balance; to cope with one or more diseases and conditions; and for overall wellness. This Backgrounder provides a general introduction to meditation and suggests some resources for finding out more.

### Key Points

- People practice meditation for a number of health-related purposes. Resources for published research results on meditation are listed at the end of this Backgrounder.
- It is not fully known what changes occur in the body during meditation; whether they influence health; and, if so, how. The National Center for Complementary and Alternative Medicine (NCCAM) and some other components of the National Institutes of Health are sponsoring studies to find out more about meditation's effects, how it works, and what diseases and conditions it may be most helpful for.
- If you are considering or using meditation or any other CAM therapy, talk to your health care provider about it. This is for your safety and a complete treatment plan.

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<sup>\*</sup> Complementary and alternative medicine is medicine used outside of conventional medicine as practiced in the United States—that is, by holders of Doctor of Medicine (M.D.) and Doctor of Osteopathy (D.O.) degrees and their allied health professionals. Complementary medicine is used **along with** conventional medicine, and alternative medicine is used **instead of** conventional medicine. Some conventional medicine practitioners are also practitioners of CAM.

## What Meditation Is

The term *meditation* refers to a group of techniques, most of which started in Eastern religious or spiritual traditions. These techniques have been used by many different cultures throughout the world for thousands of years. Today, many people use meditation outside of its traditional religious or cultural settings, for health and wellness purposes.

In meditation, a person learns to focus his attention and suspend the stream of thoughts that normally occupy the mind. This practice is believed to result in a state of greater physical relaxation, mental calmness, and psychological balance. Practicing meditation can change how a person relates to the flow of emotions and thoughts in the mind.

Most types of meditation have four elements in common:

- **A quiet location.** Many meditators prefer a quiet place with as few distractions as possible. This can be particularly helpful for beginners. People who have been practicing meditation for a longer period of time sometimes develop the ability to meditate in public places, like waiting rooms or buses.
- **A specific, comfortable posture.** Depending on the type being practiced, meditation can be done while sitting, lying down, standing, walking, or in other positions.
- **A focus of attention.** Focusing one's attention is usually a part of meditation. For example, the meditator may focus on a mantra (a specially chosen word or set of words), an object, or the breath.
- **An open attitude.** Having an open attitude during meditation means letting distractions come and go naturally without stopping to think about them. When distracting or wandering thoughts occur, they are not suppressed; instead, the meditator gently brings attention back to the focus. In some types of meditation, the meditator learns to observe the rising and falling of thoughts and emotions as they spontaneously occur.

Meditation is practiced both on its own and as a component of some other therapies, such as yoga, tai chi, and qi gong. This Backgrounder focuses on meditation practiced on its own.

## Meditation for Health Purposes

Meditation used as CAM is a type of mind-body medicine (one of the four domains, or areas of knowledge, in CAM). Generally, mind-body medicine focuses on:

- The interactions among the brain, the rest of the body, the mind, and behavior
- The ways in which emotional, mental, social, spiritual, and behavioral factors can directly affect health

People use meditation for various health problems, such as:

- Anxiety
- Pain
- Depression
- Mood and self-esteem problems
- Stress
- Insomnia
- Physical or emotional symptoms that may be associated with chronic illnesses and their treatment, such as:
  - o Cardiovascular (heart) disease
  - o HIV/AIDS
  - o Cancer

Meditation is also used for overall wellness.

A large national survey on Americans' use of CAM, released in 2004, found that nearly 8 percent of the participants had used meditation specifically for health reasons during the year before the survey.

### **Examples of Meditation**

Mindfulness meditation and the Transcendental Meditation technique (also known as TM) are two common approaches to meditation. They are also two types of meditation being studied in NCCAM-sponsored research projects.

Mindfulness meditation originated in Buddhism. It is based on the concept of being mindful, or having an increased awareness and total acceptance of the present. While meditating, the meditator is taught to bring all her attention to the sensation of the flow of the breath in and out of the body. The intent might be described as focusing attention on what is being experienced, without reacting to or judging that experience. This is seen as helping the meditator learn to experience thoughts and emotions in normal daily life with greater balance and acceptance.

TM originated in the Vedic tradition in India. It is a type of meditation that uses a mantra (a word, sound, or phrase repeated silently) to prevent distracting thoughts from entering the mind. The intent of TM might be described as allowing the mind to settle into a quieter state and the body into a state of deep rest. This is seen as ultimately leading to a state of relaxed alertness.

### **Looking at How Meditation May Work**

Practicing meditation has been shown to induce some changes in the body, such as changes in the body's "fight or flight" response. The system responsible for this response is the autonomic nervous system (sometimes called the involuntary nervous system). It regulates many organs and

muscles, including functions such as the heartbeat, sweating, breathing, and digestion, and does so automatically.

The autonomic nervous system is divided into two parts:

- The **sympathetic nervous system** helps mobilize the body for action. When a person is under stress, it produces the fight-or-flight response: the heart rate and breathing rate go up, for example, the blood vessels narrow (restricting the flow of blood), and muscles tighten.
- The **parasympathetic nervous system** creates what some call the “rest and digest” response. This system’s responses oppose those of the sympathetic nervous system. For example, it causes the heart rate and breathing rate to slow down, the blood vessels to dilate (improving blood flow), and activity to increase in many parts of the digestive tract.

While scientists are studying whether meditation may afford meaningful health benefits, they are also looking at how it may do so. One way some types of meditation might work is by reducing activity in the sympathetic nervous system and increasing activity in the parasympathetic nervous system.

Scientific research is using sophisticated tools to learn more about what goes on in the brain and the rest of the body during meditation, and diseases or conditions for which meditation might be useful. There is still much to learn in these areas. One avenue of research is looking at whether meditation is associated with significant changes in brain function. A number of researchers believe that these changes account for many of meditation’s effects.

## Side Effects and Risks

Meditation is generally safe. There have been a small number of reports that intensive meditation could cause or worsen symptoms in people who have certain psychiatric problems, but this question has not been fully researched. Individuals who are aware of an underlying psychiatric disorder and want to start meditation should speak with a mental health professional before doing so.

Any person who is interested in using meditation as CAM should consider the following:

- Meditation should never delay the time it takes you to see your health care provider about having a medical problem diagnosed or treated, and it should not be used as the only treatment without first consulting your provider.
- It is important to discuss any CAM therapies you are considering or using (including meditation) with your provider for a complete treatment plan and your safety.
- If you are interested in learning meditation, ask about the training and experience of the instructor (see also NCCAM’s publication “Selecting a CAM Practitioner”).
- Find out whether there have been any research studies published on meditation for the health condition you are interested in (see the resources in “For More Information” below).

## NCCAM-Supported Research

Some recent studies supported by NCCAM have been investigating:

- The potential effectiveness of the Transcendental Meditation technique to prevent and treat heart disease
- Mindfulness-based stress reduction to relieve symptoms of rheumatoid arthritis and, in a different study, chronic lower back pain
- What happens to the brain's activity and structures during Buddhist insight meditation (which includes mindfulness) in a study that uses a brain scan called fMRI
- The long-term impact of meditation on basic emotional and cognitive functions and on mechanisms in the brain that are involved in these functions

## References

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## **For More Information**

### **NCCAM Clearinghouse**

The NCCAM Clearinghouse provides information on CAM and on NCCAM, including publications and searches of Federal databases of scientific and medical literature. Publications include “Mind-Body Medicine: An Overview.” The Clearinghouse does not provide medical advice, treatment recommendations, or referrals to practitioners.

Toll-free in the U.S.: 1-888-644-6226

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

Web site: [nccam.nih.gov](http://nccam.nih.gov)

E-mail: [info@nccam.nih.gov](mailto:info@nccam.nih.gov)

### **PubMed®**

A service of the National Library of Medicine (NLM), PubMed contains publication information and (in most cases) abstracts of articles from biomedical journals. CAM on PubMed, developed jointly by NCCAM and NLM, is a subset and focuses on the topic of CAM.

Web site: [www.ncbi.nlm.nih.gov/entrez](http://www.ncbi.nlm.nih.gov/entrez)

CAM on PubMed: [www.nlm.nih.gov/nccam/camonpubmed.html](http://www.nlm.nih.gov/nccam/camonpubmed.html)

### **CRISP (Computer Retrieval of Information on Scientific Projects)**

CRISP is a database of federally funded biomedical research projects, including those funded by NCCAM.

Web site: [www.crisp.cit.nih.gov](http://www.crisp.cit.nih.gov)

### **ClinicalTrials.gov**

ClinicalTrials.gov is a database of information on federally and privately supported clinical trials for a wide range of diseases and conditions. It is sponsored by the National Institutes of Health and the U.S. Food and Drug Administration.

Web site: [www.clinicaltrials.gov](http://www.clinicaltrials.gov)

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